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Lambrecht

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[54] **SYSTEM AND METHOD FOR TRANSFERRING PERIODIC DATA STREAMS ON A MULTIMEDIA BUS**

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Related U.S. Application Data

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[51] **Int. Cl.^{6}** **G06F 13/14**

[52] **U.S. Cl.** **395/297**; 395/308; 395/309

[58] **Field of Search** 395/280–309

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[57] **ABSTRACT**

A computer system optimized for real-time applications which provides increased performance over current computer architectures. The system includes a standard local system bus, such as the PCI bus, and also includes a dedicated real-time bus or multimedia bus. Thus multimedia devices such as video cards, audio cards, etc., as well as communications devices, transfer real-time data through a separate bus without requiring arbitration for the PCI bus. The computer system of the present invention thus provides much greater performance for real-time applications than prior systems. In various embodiments, multimedia devices transmit addressing and control information for a multimedia bus transfer either over the PCI bus or using a separate serial control channel. The multimedia bus may also comprise separate multimedia channels for different data types. Methods are also disclosed for transferring periodic multimedia data over the multimedia bus

21 Claims, 25 Drawing Sheets